

A FACT SHEET FOR Tri-Butyl Tin

Since late 1995, tri-butyl tin, an anti-fouling agent, has been banned for use in cooling water systems within the nine San Francisco Bay area counties of Santa Clara, Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Solano, and Sonoma. The California Department of Pesticide Regulation enacted this state law to protect marine life and water quality in the San Francisco Bay. The following are suggestions on how you can comply with this regulation.

Tri-butyl tin Uses

Open recirculating cooling water systems are subject to corrosion, scale formation, and biological fouling. This, in turn, has a direct effect on system operating efficiency, reliability, and life cycle. One common way to manage the fouling caused by microorganisms such as bacteria, algae, and fungi is to use chemical additives that contain tri-butyl tin (TBT). However, since December 1995 the Department of Pesticide Regulations has prohibited the use of such products in cooling water systems. Owners and operators of cooling towers are responsible for ensuring that any chemical treatment used in cooling water systems does not contain this banned substance. Similarly, chemical suppliers are prohibited from selling products containing tri-butyl tin to users within the San Francisco Bay Area for the purpose of controlling fouling in cooling water systems.

Products with Tri-butyl tin

Although tri-butyl tin is banned in the San Francisco Bay Area, its use is still allowed in other parts of California. There are still products registered for use in cooling water systems in the state that contain tri-butyl tin; these should be avoided if you operate or maintain cooling water systems in the San Francisco Bay Area.

Following is a partial list of commonly used cooling system products that contain tri-butyl tin. Many or all of these products are no longer in production but they may still be stored onsite at your facility. Be sure to remove and dispose of them properly.

TBT-Containing Products	
Betz Enchem 41-J7	Nalco 4WC-239
Betz Entec 340	Nalco Visco 3951
Betz Slimicide Formula J-9	Nalco 7325
Dearcide 717	Nalco 7329
Dearcide 703, 732	Sanatox 2219
Formulation HL-69D	Skasol Microbiocide No. 8
Formulation HL-138D	TEI-40
Garratt-Callahan Formula 34-A	West C-106
Nalco 2532 Microorganism Control Chemical	West C-113
Nalco 7328 Microorganism Control Chemical	

Maintenance Tips

- Schedule routine monitoring and maintenance of your cooling water systems in accordance with manufacturer's specifications.
- Review cooling water system chemical usage, discharges, and cleaning practices to identify and eliminate sources of tri-butyl tin.
- Ask your cooling tower vendors to consult with their chemical suppliers to ensure that they do not distribute products containing tri-butyl tin. Be aware that Material Safety Data Sheets may not list tri-butyl tin as a product ingredient if the active amount is less than 0.5%.
- Be sure your service contract includes specific provisions prohibiting the use of tri-butyl tin as a cooling water system additive.
- Dispose of products containing tri-butyl tin as you would a hazardous waste. Small businesses in Santa Clara County may contact the Santa Clara County Department of Environmental Health, Hazardous Waste Disposal Program for Small Businesses at (408) 299-7300 for assistance. Also, check with your vendor if they offer a recall campaign.
- And most importantly, do not dispose of products containing tri-butyl tin into the trash, or storm and sanitary sewer systems.



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